Protocol Two: Cloud Cover

Purpose

To observe cloud cover at the school Atmosphere Study Site.

Overview

Cloud type is useful in climate studies and is related to precipitation and air temperature.

Time

5 minutes

Skill Level

All

Frequency

Daily within one hour of local solar noon.

Key Concepts and Skills

Concepts

Cloud formation
Composition of the atmosphere
Cooling/warming effect of clouds

Skills

Estimating cloud cover
Recording data
Observing carefully

Tools and Materials

Atmosphere data recording sheet

Prerequisites

None

What to Do and How to Do It

Make the cloud cover measurements at the same site you use for cloud-type measurement. Cloud cover should be reported according to the following cloud-cover classification definitions:

Clear

The sky is cloudless or clouds cover less than one-tenth of the sky. (Since a clear sky can include some clouds, it is possible to report cloud type even when you report a clear sky.)

Scattered Clouds

Clouds cover one-tenth through five-tenths of the sky.

Broken clouds

Clouds cover greater than five-tenths through nine-tenths of the sky.

Overcast

Clouds cover more than nine-tenths of the sky.

Note: Even experienced observers can have difficulty accurately differentiating between scattered clouds and broken clouds. If you see more blue sky than clouds, then the cloud cover is considered to be scattered. If you see more clouds than you do blue sky, then the cloud cover is broken.

Data Submission

Record on the Atmosphere data recording sheet one of the four categories of cloud cover each day, and report your findings to the GLOBE Student Data Server.